

MassDEP's Emerging Contaminant Project

A Presentation for the Bureau of Waste Site Cleanup Advisory Committee

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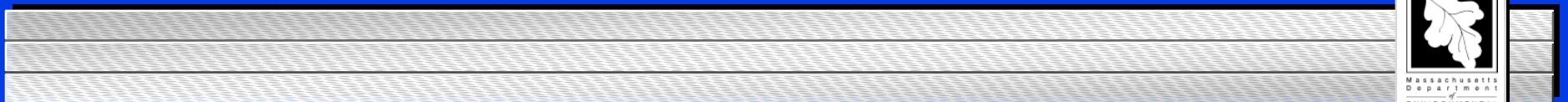


Presentation Overview

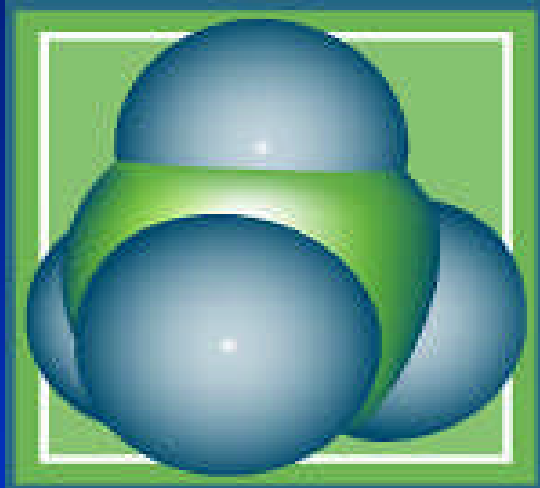
- Why address emerging contaminants?
- Project Goals, Approach, Initiatives & Challenges
- Public process for external input
- What are your views on emerging contaminants?



Why Address Emerging Contaminants?



Perchlorate = Heightened Awareness of Emerging Contaminants



- **April 2001:** Perchlorate on MassDEP's radar screen.
- **July 2006:** MA 1st state in US to promulgate perchlorate standards
- **July 2006:** Institutionalize workgroup capacity to address other emerging contaminants

Relevance of Emerging Contaminants?

- > 85,000 chemicals commercially available in U.S.
- Improved analytical methods
- Biomonitoring studies indicate human exposure
- Potential effects on humans, aquatic species & wildlife?



MassDEP Emerging Contaminant Project

- **Goals**

- To identify and assess public health and environmental problems associated with presently unregulated contaminants or contaminants that are not adequately regulated.
- To recommend agency strategies for managing these compounds, “as feasible.”

- **Outcome**

- MassDEP will identify new problems earlier.
- Be more prepared.



Participation

- Representatives from all Bureaus, Offices and Regional Offices
- Interagency deliberations (EEA, DPH, OTA, MWRA, DOL)
- Invited experts to meet on key issues
- Program Advisory Committees



MassDEP's Definition

Emerging contaminants (ECs) are hazardous materials or mixtures that are characterized by having:

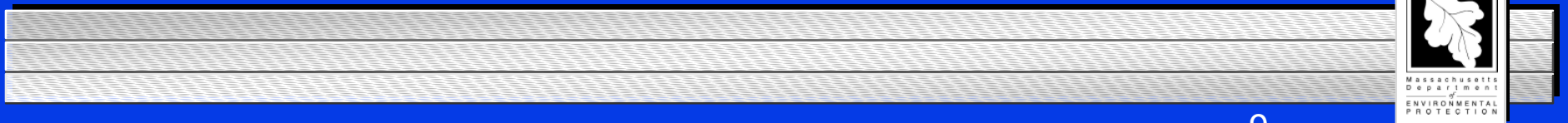
- a perceived or real threat to human health, public safety or the environment;
- No published health standards or guidelines;
- Toxicological information is limited or being re-evaluated; or
- Significant new source, pathway, or detection limit information.

ECs may be naturally occurring or manmade chemical, microbial or radiological substances.



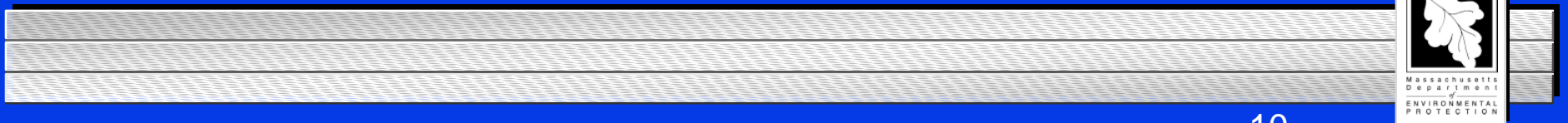
Approach To Address ECs

- Established a process to:
 - Identify emerging contaminants; and,
 - Screen emerging contaminants to set priorities.
- Recommend management strategies.



Process for Identifying Emerging Contaminants (ECs)

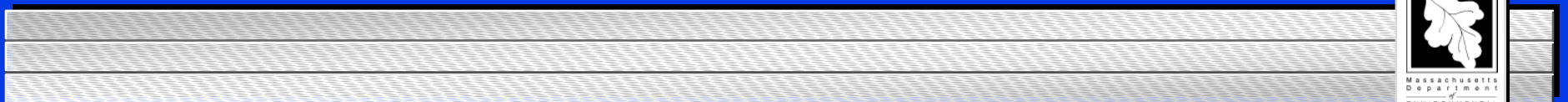
- Prepare a master list of ECs
 - Data base scans
 - Knowledge of workgroup members
 - Input from stakeholders
- Update the list every 6 months



Screening Process for Identifying Priorities

Objective:

- Consistent & transparent process
- Outcome:
 - Watch List: identify emerging contaminants that we need to maintain an awareness of
 - Recommend Priorities: priorities and strategies to manage them.



Emerging Contaminant Screening

Master List

Based on:

- Database scans
- Knowledge of workgroup & stakeholders
- High urgency and visibility issue

Screening Process: Step 1

Contaminant is screened out when:

- It is not considered to be generally important;
- Others (EPA, states) are addressing the issue adequately;
- An existing MassDEP standard or guideline exists;
- Jurisdictional issues

Watch List

Screening Process: Step 2

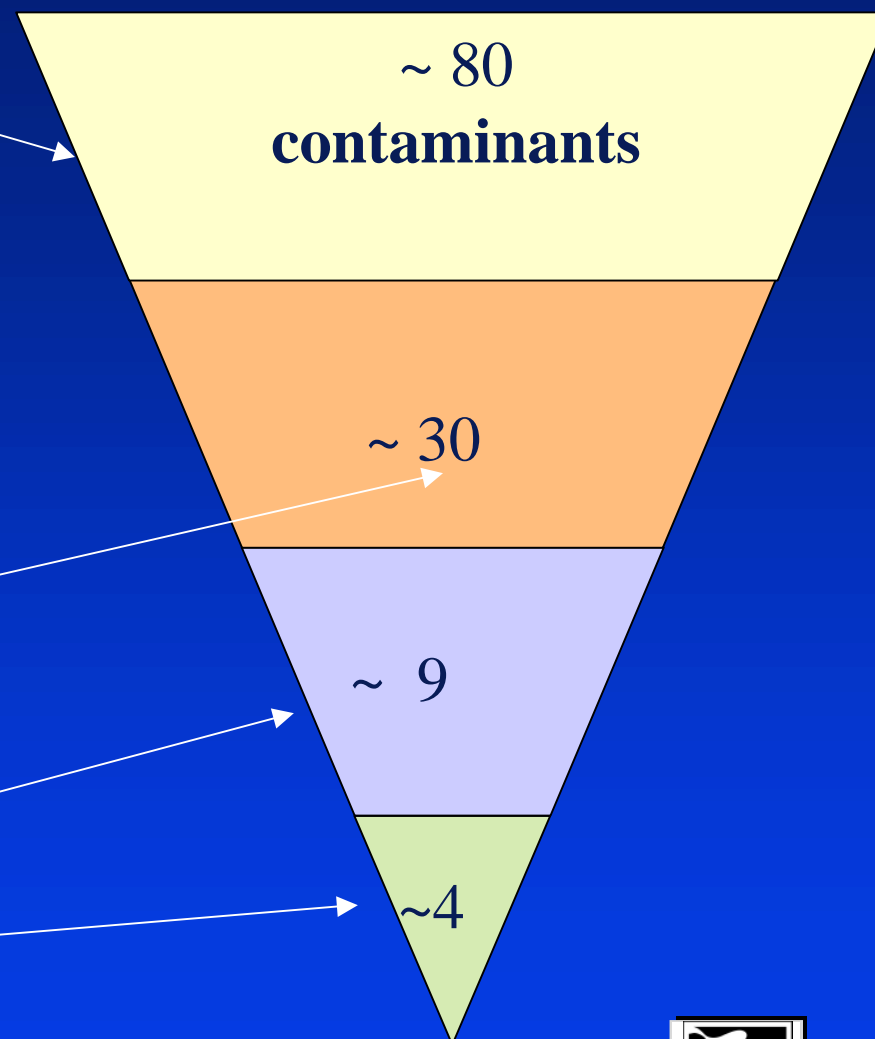
Consider:

- Certainty in science
- Tangible outcomes
- Cross-media contaminant

Priority Emerging Contaminants

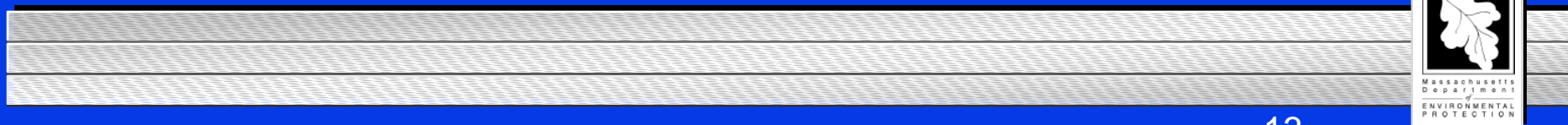
Nominations for Short-Term Action

Recommend strategies to address contaminants



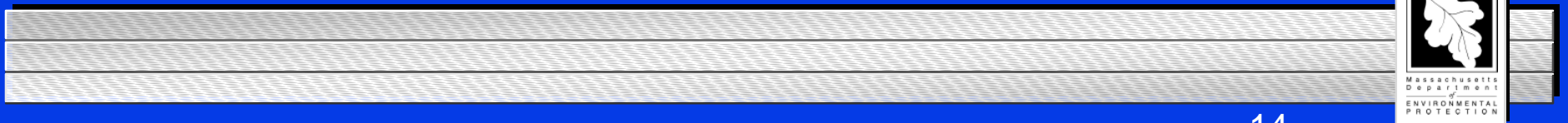
EC Priority List

- Pharmaceuticals and personal care products (PPCPs)
- Endocrine disrupting compounds (EDCs)
- RDX (cyclotrimethylenetrinitramine)
- Tetrachloroethylene
- Nanoparticles
- Brominated flame retardants (PBDEs)
- Methyl tertiary butyl ether (MTBE)
- Trichloroethylene
- Tungsten



External Input

- Advisory Committees & Stakeholders
 - Provide information/updates
 - Receive input on ECs
 - Comments on our priorities
- Issue-Specific Meetings



For more information on MassDEP's Emerging Contaminant Work:

www.mass.gov/dep

or

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